Beginner’s Guide to Growing Marijuana

This is a guide that I pulled off the net that puts everything in plain and simple English, and doesn’t go to deep into advanced botany and gardening. I find this one to be the best guide out there.

Indoor Marijuana Cultivation

Introduction

Growing marijuana indoors is fast becoming an American Pastime. The reasons are varied. With the increased interest and experimentation in houseplant cultivation, it was inevitable that people would apply their knowledge of plant care to growing marijuana. Many of those who occasionally like to light up a joint may find it difficult to locate a source or are hesitant to deal with a perhaps unsavory element of society in procuring their grass. There is, of course, the criminal aspect of buying or selling grass; Growing marijuana is just as illegal as buying, selling, or smoking it, but growing is something you can do in the privacy of your own home without having to deal with someone you don’t know or trust. The best reason for growing your own is the enjoyment you will get out of watching those tiny little seeds you picked out of you stash sprout and become some of the most lovely and lush of all house plants.

Anyone Can Do It

Even if you haven’t had any prior experience with growing plants in you home, you can have a successful crop of marijuana by following the simple directions in this pamphlet. If you have had problems in the past with marijuana cultivation, you may find the solutions in the following chapters. Growing a marijuana plant involves four basic steps:

1. Get the seeds. If you don’t already have some, you can ask your friends to save you seeds out of any good grass they may come across. You’ll find that lots of people already have a seed collection of some sort and are willing to part with a few prime seeds in exchange for some of the finished product.

2. Germinate the seeds. You can simply drop a seed into moist soil, but by germinating the seeds first you can be sure that the seed will indeed produce a plant. To germinate seeds, place a group of them between about six moist paper towels, or in the pores of a moist sponge. Leave the towels or sponge moist but not soaking wet. Some seeds will germinate in 24 hours while others may take several days or even a week.

3. Plant the sprouts. As soon as the seed cracks open and begin to sprout, place it on some moist soil and sprinkle a little soil over the top of it.

4. Supply the plants with light. Fluorescent lights are the best. Hang the lights with two inches of the soil and after the plants appear above the ground, continue to keep the lights with two inches of the plants. It is as easy as that. If you follow those four steps you will grow a marijuana plant. To ensure prime quality and the highest yield in the shortest time period, however, a few details are necessary.

Soil

Your prime concern, after choosing high quality seeds, is the soil. Use the best soil you can get. Scrimping on the soil doesn’t pay off in the long run. If you use non-sterilized soil you will almost certainly find parasites in it, probably after it is too late to transplant your marijuana. You can find excellent soil for sale at your local plant shop or nursery, K-Mart, Wal-Mart, and even some grocery stores. The soil you use should have these properties for the best possible results:

1. It should drain well. That is, it should have some sand in it and also some sponge rock or pearlite.

2. The pH should be between 6.5 and 7.5 since marijuana does not do well in acidic soil. High acidity in soil encourages the plant to be predominantly male, an undesirable trait.

3. The soil should also contain humus for retaining moisture and nutrients.

If you want to make your own soil mixture, you can use this recipe: Mix two parts moss with one part sand and one part pearlite or sponge rock to each four gallons of soil. Test your soil for pH with litmus paper or with a soil testing kit available at most plant stores. To raise the pH of the soil, add ½ lb. lime to 1 cubic foot of soil to raise the pH one point. If you absolutely insist on using dirt you dug up from your driveway, you must sterilize it by baking it in your oven for about an hour at 250 degrees. Be sure to moisten it thoroughly first and also prepare yourself for a rapid evacuation of your kitchen because that hot soil is going to stink. Now add to the mixture about one tablespoon of fertilizer (like Rapid-Gro) per gallon of soil and blend it in thoroughly. Better yet, just skip the whole process and spend a couple bucks on some soil.

Containers

After you have prepared your soil, you will have to come up with some kind of container to plant in. The container should be sterilized as well, especially if they have been used previously for growing other plants. The size of the container has a great deal to do with the rate of growth and overall size of the plant. You should plan on transplanting your plant not more than one time, since the process of transplanting can be a shock to the plant and it will have to undergo a recovery period in which growth is slowed or even stopped for a short while. The first container you use should be no larger than six inches in diameter and can be made of clay or plastic. To transplant, simply prepare the larger pot by filling it with soil and scooping out a little hole about the size of the smaller pot that the plant is in. Turn the plant upside down, pot and all, and tap the rim of the pot sharply on a counter or the edge of the sink. The soil and root ball should come out of the pot cleanly with the soil retaining the shape of the pot and with no disturbances to the root ball. Another method that can bypass the transplanting problem is using a Jiffy-Pot. Jiffy pots are made of compressed peat moss and can be planted right into moist soil where they decompose and allow the passage of the root system through their walls. The second container should have a volume of at least three gallons. Marijuana doesn’t like to have its roots bound or cramped for space, so always be sure that the container you use will be deep enough for your plant’s root system. It is very difficult to transplant a five-foot marijuana tree, so plan ahead. It is going to get bigger. The small plants should be ready to transplant into their permanent homes in about two weeks. Keep a close watch on them after the first week or so and avoid root binding at all costs since the plants never seem to do as well once they have been stunted by the cramping of their roots.

Fertilizer

Marijuana likes lots of food, but you can do damage to the plants if you are too zealous. Some fertilizers can burn a plant and damage its roots if used in to high a concentration. Most commercial soil will have enough nutrients in it to sustain the plant for about three weeks of growth so you don’t need to worry about feeding your plant until the end of the third week. The most important thing to remember is to introduce the fertilizer concentration to the plant gradually. Start with a fairly diluted fertilizer solution and gradually increase the dosage. There are several good marijuana fertilizers on the commercial market, two of which are Rapid-Gro and Eco-Grow. Rapid-Gro has had widespread use in marijuana cultivation and is available in most parts of the United States. Eco-Grow is also especially good for marijuana since it contains an ingredient that keeps the soil from becoming acid. Most fertilizers cause a pH change in the soil. Adding fertilizer to the soil almost always results in a more acidic pH.

As time goes on, the amount of salts produced by the breakdown of fertilizers in the soil causes the soil to become increasingly acidic and eventually the concentration of these salts in the soil will stunt the plant and cause browning out of the foliage. Also, as the plant gets older its roots become less effective in bringing food to the leaves. To avoid the accumulation of these salts in your soil and to ensure that your plant is getting all of the food it needs you can begin leaf feeding your plant at the age of about 1.5 months. Dissolve the fertilizer in worm water and spray the mixture directly onto the foliage. The leaves absorb the fertilizer into their veins. If you want to continue to put fertilizer into the soil as well as leaf feeding, be sure not to overdose your plants.

Remember to increase the amount of food your plant receives gradually. Marijuana seems to be able to take as much fertilizer as you want to give it as long as it is introduced over a period of time. During the first three months or so, fertilize your plants every few days. As the rate of foliage growth slows down in the plant’s preparation for blooming and seed production, the fertilizer intake of the plant should be slowed down as well. Never fertilize the plant just before you are going to harvest it since the fertilizer will encourage foliage production and slow down

resin production. A word here about the most organic of fertilizers: worm castings. As you may know, worms are raised commercially for sale to gardeners. The breeders put the worms in organic compost mixtures and while the worms are reproducing they eat the organic matter and expel some of the best marijuana food around. After the worms have eaten all the organic matter in the compost, they are removed and sold and the remains are then sold as worm castings. These castings are so rich that you can grow marijuana in straight worm castings. This isn't really necessary however, and it is somewhat impractical since the castings are very expensive. If you can afford them you can, however, blend them in with your soil and they will make a very good organic fertilizer.

Light

Without light, the plants cannot grow. In the countries in which marijuana grows best, the sun is the source of light. The amount of light and the length of the growing season in these countries result in huge tree-like plants. In most parts of North America, however, the sun is not generally intense enough for long enough periods of time to produce the same size and quality of plants that grow with ease in Latin America and other tropical countries. The answer to the problem of lack of sun, especially in the winter months, shortness of the growing season and other problems is to grow indoors under simulated conditions. The rule of thumb seems to be the more light, the better. In one experiment we know of, eight eight-foot VHO Gro-Lux fixtures were used over eight plants. The plants grew at an astonishing rate. The lights had to be raised every day. There are many types of artificial light and all of them do different things to your plants. The common incandescent light bulb emits some of the frequencies of light the plant can use, but it also emits a high percentage of far-red and infrared light, which cause the plant to concentrate its growth on the stem. This results in the plant stretching toward the light bulb until it becomes so tall and spindly that it just weakly topples over. There are several brands of bulb type. One is the incandescent plant spotlight, which emits higher amounts of red and blue light than the common light bulb. It is an improvement, but has it drawbacks. it is hot, for example, and cannot be placed close to the plants. Consequently, the plant has to stretch upwards again and is in danger of becoming elongated and falling over. The red bands of light seem to encourage stem growth, which is not desirable in growing marijuana. The idea is to encourage foliage growth for obvious reasons. Gro-Lux lights are probably the most common fluorescent plant lights. In our experience with them, they have proven themselves to be extremely effective. They range in size from one to eight feet in length so you can set up a growing room in a closet or a warehouse. There are two types of Gro-Lux lights: The standard and the wide spectrum. They can be used in conjunction with on another, but the wide spectrum lights are not sufficient on their own. The wide spectrum lights were designed as a supplementary light source and are cheaper than the standard lights. Wide spectrum lights emit the same bands of light as the standard but the standard emits higher concentrations of red and blue bands that the plants need to grow. The wide spectrum lights also emit infrared, the effect of which on stem growth we have already discussed. If you are planning to grow on a large scale, you might be interested to know that the regular fluorescent lamps and fixtures, the type that are used in commercial lighting, work well when used along with standard Gro-Lux lights. These commercial lights are called cool whites, and are the cheapest of the fluorescent lights we have mentioned. They emit as much blue light as the Gro-Lux standards and the blue light is what the plants use in foliage growth.

Now we come to the question of intensity. Both the standard and wide spectrum lamps come in three intensities: regular output, high output, and very high output. You can grow a nice crop of plants under the regular output lamps and probably be quite satisfied with our results. The difference in using the HO or VHO lamps is the time it takes to grow a crop. Under a VHO lamp, the plants grow at a rate that is about three times the rate at which they grow under the standard lamps. People have been known to get a plant that is four feet tall in two months under one of these lights. Under the VHO lights, one may have to raise the lights every day, which means a growth rate of at least two inches a day. The only drawback is the expense of the VHO lamps and fixtures. The VHO lamps and fixtures are almost twice the price of the standard. If you are interested in our opinion, they are well worth it. Now that you have your lights up, you might be curious about the amount of light to give you plants per day. The maturation date of your plants is dependent on how much light they receive per day. The longer the dark period per day, the sooner the plant will bloom. Generally speaking, the less dark per day the better during the first six months of the plant's life. The older the plant is before it blooms and goes to seed, the better the grass will be. After the plant is allowed to bloom, its metabolic rate is slowed so that the plant's quality does not increase with the age at the same rate it did before it bloomed. The idea, then, is to let the plant get as old as possible before allowing it to mature so that the potency will be a high as possible at the time of harvest. One relatively sure way to keep your plants from blooming until you are ready for them is to leave the lights on all the time. Occasionally a plant will go ahead and bloom

anyway, but it is the exception rather than the rule. If your plants receive 12 hours of light per day they will probably mature in 2 to 2.5 months. If they get 16 hours of light per day they will probably be blooming in 3.5 to 4 months. With 18 hours of light per day, they will flower in 4.5 to 5 months. It's a good idea to put your lights on a timer to ensure that the amount of light received each day remains constant. A "vacation" timer, normally used to make it look like you are home while you are away, works nicely and can be found at most hardware or discount stores.

Energy Emissions in Arbitrary Color Bands

40 Watt Fluorescent Lamps in Watts and Percent of Total Emissions

Light Type	Band	Daylight Watts %	Cool White Watt %	Gro-Lux Watt %	Gro-Lux WS Watt %
Ultra-Violet	-380	0.186 2.15	0.16 1.68	0.10 1.42	0.27 3.16
Violet	380-430	0.832 9.60	0.72 7.57	0.70 9.67	1.07 12.48
Blue	430-490	2.418 27.91	1.98 20.78	1.96 27.07	1.22 14.29
Green	490-560	2.372 27.38	2.35 24.67	1.02 14.02	1.24 14.49
Yellow	560-590	1.259 14.53	1.74 18.27	0.10 1.42	0.83 9.77
Orange	590-630	1.144 13.21	1.69 17.75	0.44 6.05	1.36 15.93
Red	630-700	0.452 6.22	0.81 8.47	2.86 39.55	1.86 21.78
Far Red	700-780	0.130 1.53	0.07 0.81	0.06 0.80	0.69 8.10
Total		8.890 100.0	9.52 100.0	7.24 100.0	8.54 100.0

Temperature and Humidity

The ideal temperature for the light hours is 68 to 78 degrees Fahrenheit and for the dark hours there should be about a 15-degree drop in temperature. The growing room should be relatively dry if possible. What you want is a resinous coating on the leaves and to get the plant to do this, you must convince it that it needs the resinous coating on its leaves to protect itself from drying out. In an extremely humid room, the plants develop wide leaves and do not produce as much resin. You must take care not to let the temperature in a dry room become too hot, however, since the plant cannot assimilate water fast enough through its roots and its foliage will begin to brown out.

Ventilation

Proper ventilation in your growing room is fairly important. The more plants you have in one room, the more important good ventilation becomes. Plants breathe through their leaves. The also rid themselves of poisons through their leaves. If proper ventilation is not maintained, the pores of the leaves will become clogged and the leaves will die. If there is a free movement of air, the poisons can evaporate off the leaves and the plant can breathe and remain healthy.

In a small closet where there are only a few plants you can probably create enough air circulation just by opening the door to look at them. Although it is possible to grow healthy looking plants in poorly ventilated rooms, they would be larger and healthier if they had a fresh supply of air coming in. If you spend a lot of time in your growing room, your plants will grow better because they will be using the carbon dioxide that you are exhaling around them. It is sometimes quite difficult to get a fresh supply of air in to your growing room because your room is usually hidden away in a secret corner of your house, possibly in the attic or basement. In this case, a fan will create some movement of air. It will also stimulate your plants into growing a healthier and sturdier stalk. Often times in an indoor environment, the stems of plants fail to become rigid because they don't have to cope with elements of wind and rain. To a degree, though, this is an advantage because the plant puts most of its energy into producing leaves and resin instead of stems.

Dehumidifying Your Growing Room

Cannabis that grows in a hot, dry climate will have narrower leaves than cannabis grown in a humid atmosphere. The reason is that in a dry atmosphere the plants can respire easier because the moisture on the leaves evaporates faster. In a humid atmosphere, the moisture cannot evaporate as fast. Consequently, the leaves have to be broader with more surface area in order to expel the wastes that the plant put out. Since the broad leaves produce less resin per leaf than the narrow there will be more resin in an ounce of narrow leaves than in one ounce of broad leaves. There may be more leaf mass in the broader leafed plants, but most people are growing their own for quality rather than quantity.

Since the resin in the marijuana plant serves the purpose of keeping the leaves from drying out, there is more apt to be a lot of resin produced in a dry room than in a humid one. In the Sears catalog, dehumidifiers cost around $100.00 and are therefore a bit impractical for the “hobby grower.”

Watering

If you live near a clear mountain stream, you can skip this bit on the quality of water. Most of us are supplied water by the city and some cities add more chemicals to the water than others . They all add chlorine, however, in varying quantities. Humans over the years have learned to either get rid of it somehow or to live with it, but your marijuana plants won’t have time to acquire a taste for it so you had better see that they don’t have to. Chlorine will evaporate if you let the water stand for 24 hours in an open container. Letting the water stand for a day or two will serve a dual purpose: The water will come to room temperature during that period of time and you can avoid the nasty shock your plants suffer when you drench them with cold water. Always water with room temperature to lukewarm water. If your water has an excessive amount of chlorine in it, you may want to get some anti- chlorine drops at the local fish or pet store. The most important thing about watering is to do it thoroughly. You can water a plant in a three-gallon container with as much as three quarts of water. The idea is to get the soil evenly moist all the way to the bottom of the pot. If you use a little water, even if you do it often, it seeps just a short way down into the soil and any roots below the moist soil will start to turn upwards toward the water. The second most important thing about watering is to see to it that the pot has good drainage. There should be some holes in the bottom so that any excess water will run out. If the pot won’t drain, the excess water will accumulate in a pocket and rot the roots of the plant or simply make the soil sour or mildew. The soil, as we said earlier, must allow the water to drain evenly through it and must not become hard or packed. If you have made sure that the soil contains sand and pearlite, you shouldn’t have drainage problems. To discover when to water, feel the soil with your finger. if you feel moisture in the soil, you can wait a day or two to water. The soil near the top of the pot is always drier than the soil further down. You can drown your plant just as easily as you can let it get too dry and it is more likely to survive a dry spell than it is to survive a torrential flood. Water the plants well when you water and don’t water them at all when they don’t need it.

Bugs

If you can avoid getting bugs in the first place you will be much better off. Once your plants become infested you will probably be fighting bugs for the rest of your plants’ lives. To avoid bugs, be sure to use sterilized soil and containers and don’t bring other plants from outside into your growing room. If you have bets, ensure that they stay out of your growing room, since they can bring in pests on their fur. Examine your plants regularly for signs of insects, spots, holes in the leaves, browning of the tips of the leaves, and droopy branches. If you find that somehow in spite of all your precautions you have a plant room full of bugs, you’ll have to spray your plants with some kind of insecticide. You’ll want to use something that will kill the bugs and not you. Spider mites are probably the bug that will do the most damage to the marijuana plants. One of the reasons is that they are almost microscopic and very hard to spot. They are called spider mites because they leave a web-like substance clinging to the leaves. They also cause tiny little spots to appear on the leaves. Probably the first thing you’ll notice, however, is that your plants look sick and depressed. The mites suck enzymes from the leaves and as a result the leaves lose some of their green color and glossiness. Sometimes the leaves look like they have some kid of fungus on them. The eggs are very tiny black dots. You might be wise to get a magnifying glass so that you can really scrutinize your plants closely. Be sure to examine the underside of the leaves too. The mites will often be found clinging to the underside as well as the top of the leaves. The sooner you start fighting the bugs, the easier it will be to get rid of them. For killing spider mites on marijuana, one of the best insecticides if “Fruit and Berry” spray made by Llers. Ortho also produces several insecticides that will kill mites. The ingredients to look for are Kelthane and Malatheon. Both of these poisons are

lethal to humans and pets as well as bugs, but they both detoxify in about ten days so you can safely smoke the grass ten days after spraying. Fruit and Berry will only kill the adult mite, however, and you'll have to spray every four days for about two weeks to be sure that you have killed all the adults before they have had a chance to lay eggs. Keep a close watch on your plants because it only takes one egg laying adult to re- infest your plants and chances are that one or two will escape your barrage of insecticides. If you see little bugs flying around your plants, they are probably white flies. The adults are immune to almost all the commercial insecticides except Fruit and Berry, which will not kill the eggs or larva. It is the larval stage of this insect that does the most damage. They suck out enzymes too, and kill your plants if they go unchecked. You will have to get on a spraying program just as was explained in the spider mite section.

An organic method of bug control is using soapsuds. Put Ivory flakes in some lukewarm water and work up the suds into lather. Then put the suds over the plant. The obvious disadvantage is it you don't rinse the soap off the plant you'll taste the soap when you smoke the leaves.

Pruning

We have found that pruning is not always necessary. The reason one does it in the first place is to encourage secondary growth and to allow light to reach the immature leaves. Some strands of grass just naturally grow thick and bushy and if they are not clipped the sap moves in an uninterrupted flow right to the top of the plant where it produces flowers that are thick with resin. On the other hand, if your plants appear tall and spindly for their age at three weeks, they probably require a little trimming to ensure a nice full leafy plant. At three weeks of age your plant should have at least two sets of branches or four leaf clusters and a top. To prune the plant, simply slice the top off just about the place where two branches oppose each other. Use a razor blade in a straight cut. If you want to, you can root the top in some water and when the roots appear, plant the top in moist soil and it should grow into another plant. If you are going to root the top you should cut the end again, this time with a diagonal cut so as to expose more surface to the water or rooting solution. The advantage to taking cuttings from your plant is that it produces more tops. The tops have the resin, and that's the name of the game. Every time you cut off a top, the plant seeds out two more top branches at the base of the existing branches. Pruning also encourages the branches underneath to grow faster than they normally would without the top having been cut.

Harvesting and Curing

Well, now that you've grown your marijuana, you will want to cur it properly so that it smokes clean and won't bite. You can avoid that "homegrown" taste of chlorophyll that sometimes makes one's fillings taste like they might be dissolving. We know of several methods of curing the marijuana so that it will have a mild flavor and a mellow rather than harsh smoke.

First, pull the plant up roots and all and hang it upside down for 24 hours. Then put each plant in a paper grocery bag with the top open for three or four days or until the leaves feels dry to the touch. Now strip the leaves off the stem and put them in a glass jar with a lid. Don't pack the leaves in tightly, you want air to reach all the leaves. The main danger in the curing process is mold. If the leaves are too damp when you put them into the jar, they will mold and since the mold will destroy the resins, mold will ruin your marijuana. You should check the jars every day by smelling them and if you smell an acrid aroma take the weed out of the jar and spread it out on newspaper so that it can dry quickly. Another method is to uproot the plants and hang them upside down. You get some burlap bags damp and slip them up over the plants. Keep the bags damp and leave them in the sun for at least a week. Now put the plants in a paper bag for a few days until the weed is dry enough to smoke. Like many fine things in life, marijuana mellows out with age. The aging process tends to remove the chlorophyll taste.

Editor's Note and Important Warning:

This pamphlet was written about 8 years ago. While the facts, figures, and methods described here are still valid, an important note must be added concerning the purchasing of equipment and supplies. The information age is upon us and an increasing amount of data is being kept about all of us whether we realize it or not. With the war on drugs in full effect, the D.E.A. is using this information at every possible opportunity. When you make a purchase with a credit card, every last bit of information regarding that purchase is filed away into a database, both at the store and with your credit card company. Not only the price, but the exact date, location, and items purchased are recorded

and stored away. Many stores and credit card companies routinely sell their databases of customers and transactions to anybody who can afford it. The D.E.A can certainly afford it. After all, they're using your tax dollars. The D.E.A. as well as other government agencies DO purchase these databases for their own uses. They feed them into their computers and the computers spit out a list of anybody with "suspicious" purchases. Any purchases that could be associated with drug production, use, or selling could be flagged for further investigation. These "suspicious" purchases include unusual chemicals, medical supplies such as syringes, lights and timers, and even potting soil and fertilizer. The point is, if you are planning on purchasing supplies to grow marijuana don't take any chances. While the computers would probably never flag the average home grower, who is simply growing enough for his own use, you never know. If you are purchasing equipment or supplies, PAY CASH! In addition, many supermarkets and discount stores now have some sort of "Preferred Customer" cards. When you buy something, regardless of how you pay, you give them your card to scan and all your purchases are recorded. They then send you some sort of coupon depending on what and how much you purchased each month. It sounds like a good deal, but you wind up having all of your purchases recorded and sold just like with the credit cards. DON'T use one of these cards when you are purchasing anything that might be deemed suspicious. For that matter, don't use them at all. They just result in a ton of junk mail and a lot of people knowing exactly what you buy and when you buy it.